



PATENT

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03/19/04

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS AND INTERFERENCES

In Re Application of:)
)
Russell Bell)
)
Serial No.: **09/579,309**)
)
Filed: **May 25, 2000**)
)
For: **System and Method to**)
Interface a Local Area)
Network with a Wide)
Area Network)

Confirmation No.: **7169**

Group Art Unit: **2143**

Examiner: **Nguyen, P.**

Docket No. **60705-1240**

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APPEAL BRIEF UNDER 37 C.F.R. §1.192

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This is an appeal from the decision of Examiner Phuoc H. Nguyen, Group Art Unit 2143, of January 7, 2004 (Paper No. 8), rejecting claims 1 - 33 in the present application and making the rejection FINAL.

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I. REAL PARTY IN INTEREST

The real party in interest of the instant application is GlobespanVirata, Inc., a corporation, having its principal place of business at 100 Schulz Drive, Red Bank, NJ 07701.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

III. STATUS OF THE CLAIMS

All pending claims 1 - 33 stand rejected. Specifically, the FINAL Office Action rejects claims 1 – 7, 13 – 19, 24 – 26, and 28 - 33 under 35 U.S.C. §102(e) as allegedly anticipated by U.S. Patent 6,252,878 to Locklear, Jr., *et al.* (hereafter “*Locklear*”). The FINAL Office Action rejects claims 8 – 10, 20 – 22, and 27 under 35 U.S.C. §103(a) as allegedly unpatentable over *Locklear* in view of U.S. Patent No. 6,370,656 to Olarig, *et al.* (hereafter “*Olarig*”). The FINAL Office Action rejects claims 11, 12, and 23 under 35 U.S.C. §103(a) as allegedly unpatentable over *Locklear*. For the reasons set further herein, Applicant respectfully requests that these rejections be overturned.

IV. STATUS OF AMENDMENTS

No claim amendments have been submitted after the FINAL Office Action, and all claim amendments submitted prior to that have been entered.

V. SUMMARY OF THE INVENTION

The present invention is generally directed to a system and method for providing multi-point access to DSL services via a single DSL supplied to a customer premise.

In accordance with one embodiment of the present invention, A local area network (LAN) to wide area network (WAN) communication system includes a first computer (FIG. 6, 33) and a first communication device (FIG. 6, 40) electrically coupled to the first computer. The first communication device is configured to provide communications over a LAN (FIG. 6, 200), the first communication device is in communication with a WAN via a ⁵⁰ first communication link (FIG. 6, "DSL Upstream & Downstream Data"). The system further provides a second computer (FIG. 6, 37) and a ^{Communication between device 12 and Server 20} second communication device electrically coupled to the ^{Computer 12} second computer configured to provide communications over the LAN between the second and the first computers, wherein the first computer is configured to assign at least one virtual connection (FIG. 6, VC) for each of the first and second computers to enable the first computer to route WAN data traffic across the LAN.

In accordance with another embodiment of the present invention, a method for managing bi-directional local area network (LAN) to wide area network (WAN) data transfers in a communication system includes using a master computer to assign at least one virtual connection to each computer in communication with the LAN (pg. 23, lines 1-11), receiving a downstream signal (WAN to LAN) at a transceiver coupled to the master computer (pg. 22, lines 23-28), forwarding the downstream signal to the master computer (pg. 23, lines 11-12), identifying at least one computer designated to receive the downstream signal (pg. 23, lines 23-29), forwarding the downstream signal to the at least one designated computer on the LAN (pg. 23, lines 23-29), receiving an upstream signal (LAN to WAN) at the master computer (pg. 23, lines 11-12), and forwarding the upstream signal from the master computer to the transceiver (pg. 23, 18-23).

VI. CONCISE STATEMENT OF THE ISSUE PRESENTED FOR REVIEW

The first issue in this appeal is whether claims 1 – 7, 13 – 19, 24 – 26, and 28 – 33 are unpatentable as anticipated under 35 U.S.C. §102(e) over *Locklear*. Specifically, as to claim 1 (the exemplary claim of Claim Group I), whether *Locklear* discloses a system including a first computer “wherein the first computer is configured to assign at least one virtual connection for *each of the first and second computers to enable the first computer to route WAN data traffic across the LAN.*” As to claim 13 (the exemplary claim of Claim Group II), whether *Locklear* discloses “*using a master computer to assign at least one virtual connection to each computer in communication with the LAN.*” And, as to claim 28 (the exemplary claim of Claim Group III), whether *Locklear* discloses “means to communicate between the master computer and each remaining device integrated on a LAN and assign at least one virtual connection to *each integrated device on the LAN.*”

The second issue in this appeal is whether claims 8 – 10, 20 – 22, and 27 are unpatentable as obvious under 35 U.S.C. §103(a) over *Locklear* in view of *Olarig*. Specifically, as to claims 8, 20, and 27 (the exemplary claims of Claim Groups IV, V, and VI, respectively), whether the FINAL Office Action establishes a *prima facie* case of obviousness by determining whether the FINAL Office Action provides a legally and substantively proper motivation to combine *Locklear* and *Olarig*; and whether the proposed combination of *Locklear* in view of *Olarig* discloses, teaches, or suggests each and every element of claims 8, 20, and 27.

More specifically, as to claim 8, whether the proposed combination of *Locklear* and *Olarig* discloses, teaches, or suggests “*a master computer and a slave computer selected from the first and second computers using one or more initialization algorithm.*” As to claim 20, whether the proposed combination of *Locklear* and *Olarig* discloses, teaches, or suggests a

method for managing bi-directional LAN to WAN data transfers “*wherein a master computer is selected from the local area network (LAN) connected computers using at least one initialization algorithm.*” And, as to claim 27, whether the proposed combination of *Locklear* and *Olarig* discloses, teaches, or suggests “using each computer to selectively recognize and remove the downstream data transfer designated from the network *wherein downstream data transfers designated for slave computers are not processed by the master computer*” or that “*the master computer assigns at least one asynchronous transfer mode virtual connection (ATM VC) to each computer in communication with the local area network (LAN).*”

VII. GROUPING OF THE CLAIMS

The claims are divided into six (6) claim groupings, as set out below. For purposes of the argument set forth in this Appeal Brief, one claim from each group will be evaluated and discussed in connection with the prior art. The claim groups include:

- (1) Claim Group I, which comprises claims 1 – 7 and 11 – 12;
- (2) Claim Group II, which comprises claims 13 – 19 and 23 – 26;
- (3) Claim Group III, which comprises claims 28 – 33;
- (4) Claim Group IV, which comprises claims 8 – 10;
- (5) Claim Group V, which comprises claims 20 – 22; and
- (6) Claim Group VI, which comprises claim 27.

Reasons that Claim Groups Do Not Stand or Fall Together

Although, in reality, all claims of an application are distinct, Applicant has grouped the claims of the present application into six (6) distinct claim groups. **One claim for each group has been chosen as the exemplary claim.** The reason that the claims for any given group do

not stand or fall with any claims of another group is, ultimately, because they are of differing scope. This differing scope is more specifically set out below.

In regard to Claim Group I, claim 1 (the exemplary claim) is broadly directed to a local area network (LAN) to wide area network (WAN) communication system. The system includes a first computer wherein the first computer is configured to assign at least one virtual connection **for each of the first and second computers to enable the first computer to route WAN data traffic across the LAN.** If the Board of Patent Appeals determines that claim 1 defines over the cited art of record, then, claims 1 – 7 and 11 - 12 should be allowed independent of the treatment of the other claim groups.

In regard to Claim Group II, claim 13 (the exemplary claim) is directed toward a method for managing bi-directional local area network (LAN) to wide area network (WAN) data transfers in a communication system. The method includes using a master computer to assign at least one virtual connection to **each computer in communication with the LAN.** If the Board of Patent Appeals determines that claim 13 defines over the cited art of record, then claims 13 – 19 and 23 - 26 should be allowed of the treatment of the other claim groups.

In regard to Claim Group III, claim 28 (the exemplary claim) is directed towards a local area network (LAN) to wide area network (WAN) communication system. As an initial matter, claim 28 is put forth in means-plus-function format. Accordingly, **as a matter of law, the means-plus-function elements of claim 28 must be construed differently than the corresponding elements of the other claims.** Therefore, the rejection of claims 1 and 13 (of Claim Groups I and II, respectively), for example, does not necessarily apply to claim 28.

Additionally, the system of claim 28 includes means to communicate between the master computer and each remaining device integrated on a LAN and assign at least one virtual

connection to *each integrated device on the LAN*. If the Board of Patent Appeals determines claim 28 patently defines over the cited art of record, then claims 28 - 33 should be allowed independent of the treatment of the other claim groups.

In regard to Claim Group IV, claim 8 (the exemplary claim) is directed towards a local area network (LAN) to wide area network (WAN) communication system. The system includes the communication system of claims 1 and 7, and further includes *a master computer and a slave computer selected from the first and second computers using one or more initialization algorithms*. If the Board of Patent Appeals determines claim 8 patently defines over the cited art of record, then claims 8 – 10 should be allowed independent of the treatment of the other claim groups.

In regard to Claim Group V, claim 20 (the exemplary claim) is directed towards a method for managing bi-directional local area network (LAN) to wide area network (WAN) data transfers in a communication system. The system includes *a master computer selected from the local area network connected computers using at least one initialization program*. If the Board of Patent Appeals determines claim 20 patently defines over the cited art of record, then claims 20 – 22 should be allowed independent of the treatment of the other claim groups.

Finally, in regard to Claim Group VI, claim 27 (the exemplary claim) is directed towards a method for managing bi-directional local area network (LAN) to wide area network (WAN) data transfers in a communication system, *wherein the master computer assigns at least one asynchronous transfer mode virtual connection (ATM VC) to each computer in communication with the local area network*. When the master computer assigns the asynchronous transfer mode virtual connection it also notifies each computer on the LAN of the assigned ATM VC identifier, and uses each computer to selectively recognize and remove the

downstream data transfer designated from the network, *wherein downstream data transfers designated for slave computers are not processed by the master computer*. If the Board of Patent Appeals determines claim 27 patently defines over the cited art of record, then claim 27 should be allowed independent of the treatment of the other claim groups.

VIII. ARGUMENT

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A. Discussion of Claim Group I

The FINAL Office Action rejects claim 1 under 35 U.S.C. § 102(e) as allegedly anticipated by *Locklear*. For the reasons set forth below, Applicant respectfully submits that the rejection should be overturned.

It is axiomatic that “[a]nticipation requires the disclosure in a single prior art reference of *each element* of the claims under consideration.” *W.L. Gore & Associates, Inc. v. Garlock, Inc.* 721 F.2d 1540, 1554, 220 U.S.P.Q. 303, 313 (Fed. Cir. 1983) (*emphasis added*). Therefore, every claimed feature of the claimed invention must be represented in the applied reference to constitute a proper rejection under 35 U.S.C. § 102(e).

Applicant submits that independent claim 1 is allowable for at least the reason that *Locklear* does not disclose, teach, or suggest anywhere in the specification or in the figures at

least the element reciting that “*the first computer is configured to assign at least one virtual connection for each of the first and second computers to enable the first computer to route WAN data traffic across the LAN.*”

The FINAL Office Action alleges that:

“Locklear reference disclose [sic] a first computer (Figure 1, server 16); a first communication device (NIC) electrically coupled to the first computer configured to provide communications over a LAN (connection between server 16 and LAN 40 of the figure 1), the first communication device in communication with a WAN (connection between server 16 and data network 18 of the figure 1) via a first communication link (link 52 of the figure 1)(Figures 1, and 2; col 3, lines 7-21; and col 3, lines 37-45; col 3, lines 54-65); a second computer (Figure 1; devices 14, and 12); and a second communication device electrically coupled to the second computer configured to provide communications over the LAN between the second and the first computers (Figure 1, communication between server 16 and devices 14), *wherein the first computer is configured to assign at least one virtual connection for each of the first and second computers to enable the first computer to route WAN data traffic across the LAN (Figure 2; col 4, lines 43-67; col 5, 1st paragraph; and col 6, lines 50-67).*”

(*Emphasis added*, Final Office Action, pg. 3-4). However, unlike the communications system of claim 1, *Locklear* discloses that “access server 16 receives a message indicating the initiation of a session on link 52” (col. 5, lines 1-2), and that “switch fabric 104 then establishes a session and assigns an address (e.g., virtual path, virtual channel) to be used in future communications with the session.” (Col. 5, lines 9-13). Additionally, “switch fabric 104 directs subsequent communications from originating device 12 that include the address associated with the established session to the assigned route processor 106.” (Col. 5, lines 24-27). Route processor 106 “routes the message to destination device 14 using LAN interface 110 and LAN 40.” (Col. 5, lines 27-30). *Locklear* further discloses that “address 224 is a numerical or textual representation of an Internet protocol (IP/IPX) address, a network/node designation, or any other address used

by LAN 40 to deliver information to device 14.” (*Emphasis added*, col. 7, lines 1-4. *See also* FIGs. 3A and 3C).

Thus, unlike claim 1, *Locklear* does not disclose that “the first computer is configured to *assign at least one virtual connection for each of the first and second computers* to enable the first computer to route WAN data traffic across the LAN,” which would include not only assigning a virtual connection to the alleged second computer (destination device 14), but also to the alleged first computer (access server 16). *Locklear* does not “assign at least one virtual connection for each of” the alleged second computer (destination device 14), and the alleged first computer (access server 16). For at least this reason, claim 1 is not anticipated by *Locklear*, and the rejection is legally insufficient, and should be overturned.

B. Discussion of Claim Group II

The FINAL Office Action rejects claim 13 (the exemplary claim) under 35 U.S.C. § 102(e) as allegedly anticipated by *Locklear*. For the reasons set forth below, Applicant respectfully submits that the rejection should be overturned.

Applicant submits that independent claim 13 is allowable for at least the reason that *Locklear* does not disclose, teach, or suggest anywhere in the specification or in the figures at least the step of “*using a master computer to assign at least one virtual connection to each computer in communication with the LAN.*”

The FINAL Office Action alleges that:

“*Locklear* reference disclose [sic] a first computer (Figure 1, server 16); a first communication device (NIC) electrically coupled to the first computer configured to provide communications over a LAN (connection between server 16 and LAN 40 of the figure 1), the first communication device in communication with a WAN (connection between server 16 and data network 18 of the figure 1)

via a first communication link (link 52 of the figure 1)(Figures 1, and 2; col 3, lines 7-21; and col 3, lines 37-45; col 3, lines 54-65); a second computer (Figure 1; devices 14, and 12); and a second communication device electrically coupled to the second computer configured to provide communications over the LAN between the second and the first computers (Figure 1, communication between server 16 and devices 14), ***wherein the first computer is configured to assign at least one virtual connection for each of the first and second computers to enable the first computer to route WAN data traffic across the LAN (Figure 2; col 4, lines 43-67; col 5, 1st paragraph; and col 6, lines 50-67).***

(*Emphasis added*, Final Office Action, pg. 3-4). However, unlike the method of claim 13, *Locklear* discloses that “access server 16 receives a message indicating the initiation of a session on link 52” (col. 5, lines 1-2), and that “switch fabric 104 then establishes a session and assigns an address (e.g., virtual path, virtual channel) to be used in future communications with the session.” (Col. 5, lines 9-13). Additionally, “switch fabric 104 directs subsequent communications from originating device 12 that include the address associated with the established session to the assigned route processor 106.” (Col. 5, lines 24-27). Route processor 106 “routes the message to destination device 14 using LAN interface 110 and LAN 40.” (Col. 5, lines 27-30). *Locklear* further discloses that “address 224 is a numerical or textual representation of an Internet protocol (IP/IPX) address, a network/node designation, or any other address used by LAN 40 to deliver information to device 14.” (*Emphasis added*, col. 7, lines 1-4. *See also* FIGs. 3A and 3C).

Thus, unlike claim 13, *Locklear* does not disclose “using a master computer to ***assign at least one virtual connection to each computer in communication with the LAN,***” which would include not only assigning a virtual connection to destination devices 14, but also the alleged master computer (access server 16). *Locklear* does not “assign at least one virtual connection to each computer in communication with the LAN” including the alleged second computer (destination device 14), and the alleged first computer (access server 16). For at least this

reason alone, claim 13 is not anticipated by *Locklear*, and the rejection is legally insufficient, and should be overturned.

Looking to claim 13 further, even assuming, *arguendo*, that *Locklear* does disclose that both access server 16 and a particular destination device 14 is assigned a virtual connection, unlike claim 13, *Locklear* does not disclose assigning a virtual connection to each of destination devices 14 which are in communication with the alleged LAN. Rather, *Locklear* discloses that “access server 16 adds and removes entries in routing table 130 as sessions are established and terminated.” (col. 6, lines 50-67). Thus, *Locklear* assigns its “virtual channel” only as sessions are established and terminated. Therefore, for this additional reason, *Locklear* does not disclose, teach, or suggest “***using a master computer to assign at least one virtual connection to each computer in communication with the LAN***” as recited in claim 13. For at least this reason alone, claim 13 is not anticipated by *Locklear*, and the rejection is legally insufficient, and should be overturned.

C. Discussion of Claim Group III

The FINAL Office Action rejects claim 28 under 35 U.S.C. § 102(e) as allegedly anticipated by *Locklear*. For the reasons set forth below, Applicant respectfully submits that the rejection should be overturned.

Applicant submits that independent claim 28 is allowable for at least the reason that *Locklear* does not disclose, teach, or suggest anywhere in the specification or in the figures at least the feature of “***means to communicate between the master computer and each remaining device integrated on the LAN and assign at least one virtual connection to each device integrated on the LAN.***”

The FINAL Office Action alleges that:

“Referring to claims 1, 13, and 28, Locklear reference disclose [sic] a first computer (Figure 1, server 16); a first communication device (NIC) electrically coupled to the first computer configured to provide communications over a LAN (connection between server 16 and LAN 40 of the figure 1), the first communication device in communication with a WAN (connection between server 16 and data network 18 of the figure 1) via a first communication link (link 52 of the figure 1)(Figures 1, and 2; col 3, lines 7-21; and col 3, lines 37-45; col 3, lines 54-65); a second computer (Figure 1; devices 14, and 12); and a second communication device electrically coupled to the second computer configured to provide communications over the LAN between the second and the first computers (Figure 1, communication between server 16 and devices 14), wherein the first computer is configured to assign at least one virtual connection for each of the first and second computers to enable the first computer to route WAN data traffic across the LAN (Figure 2; col 4, lines 43-67; col 5, 1st paragraph; and col 6, lines 50-67).”

(*Emphasis added*, Final Office Action, pg. 3-4). However, unlike the method of claim 28, *Locklear* discloses that “access server 16 receives a message indicating the initiation of a session on link 52” (col. 5, lines 1-2), and that “switch fabric 104 then establishes a session and assigns an address (e.g., virtual path, virtual channel) to be used in future communications with the session.” (Col. 5, lines 9-13). Additionally, “switch fabric 104 directs subsequent communications from originating device 12 that include the address associated with the established session to the assigned route processor 106.” (Col. 5, lines 24-27). Route processor 106 “routes the message to destination device 14 using LAN interface 110 and LAN 40.” (Col. 5, lines 27-30). *Locklear* further discloses that “address 224 is a numerical or textual representation of an Internet protocol (IP/IPX) address, a network/node designation, or any other address used by LAN 40 to deliver information to device 14.” (*Emphasis added*, col. 7, lines 1-4. *See also* FIGs. 3A and 3C).

Thus, unlike claim 13, *Locklear* does not disclose “*means to* communicate between the master computer and each remaining device integrated on the LAN and *assign at least one*

virtual connection to each device integrated on the LAN,” which would include not only assigning a virtual connection to destination devices 14, but also to the alleged master computer (access server 16). Locklear does not “assign at least one virtual connection to each device integrated on the LAN,” including the alleged second computer (destination device 14), and the alleged first computer (access server 16). For at least this reason alone, claim 28 is not anticipated by *Locklear*, and the rejection is legally insufficient, and should be overturned.

Looking at claim 28 further, even assuming, *arguendo*, that *Locklear* does disclose that both access server 16 and a particular destination device 14 is assigned a virtual connection, unlike claim 28, *Locklear* does not disclose assigning a virtual connection to each of destination devices 14 which are integrated on the alleged LAN. Rather, *Locklear* discloses that “access server 16 adds and removes entries in routing table 130 as sessions are established and terminated.” (Col. 6, lines 50-67). Thus, *Locklear* assigns its “virtual channel” only as sessions are established and terminated. Therefore, for this additional reason, *Locklear* does not disclose, teach, or suggest “*means to* communicate between the master computer and each remaining device integrated on the LAN and *assign at least one virtual connection to each device integrated on the LAN*” as recited in claim 28. For at least this reason alone, claim 28 is not anticipated by *Locklear*, and the rejection is legally insufficient, and should be overturned.

As a separate and independent basis for the patentability of claim 28, claim 28 sets forth elements using means-plus-function language. Pursuant to 35 U.S.C. § 112(6), a claim element recited in means-plus-function format “shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.” 35 U.S.C. § 112, ¶ 6. The Federal Circuit has clearly endorsed this statutory mandate by holding that claims interpreted under 35 U.S.C. § 112, paragraph 6, are limited to the corresponding structure

disclosed in the specification and its equivalents. *Kahn v. General Motors Corp.*, 135 F.3d 1472, 45 U.S.P.Q.2d 1608 (Fed. Cir. 1998).

There should be no question but that the elements recited in claim 28 are to be construed pursuant to 35 U.S.C. § 112, paragraph 6. In *Greenberg v. Ethicon Endo-Surgical Inc.*, 91 F.3d 1580, 39 U.S.P.Q. 2d 1783 (Fed. Cir. 1996), the Federal Circuit stated that the use of “means for” language generally invokes 112(6). Indeed, only if means-plus-function claim elements recite sufficient structure to carry out the function are that taken out of the ambit of 35 U.S.C. § 112, paragraph 6. *Cole v. Kimberly-Clark Corp.*, 102 F.3d 524, 41 U.S.P.Q.2d 1001 (Fed. Cir. 1996).

Indeed, the Federal Circuit reiterated in *Sage Products, Inc. v. Devon Industries, Inc.*, 126 F.3d 1420, 44 U.S.P.Q.2d 1103 (Fed. Cir. 1998) that “the use of the word ‘means,’ which is part of the classic template for functional claim elements, gives rise to ‘a presumption that the inventor used the term advisedly to invoke the statutory mandates for means-plus-function clauses.” Ultimately, the Court in *Sage* construed the relevant claim elements under 35 U.S.C. § 112(6), because ‘means’ were recited, and the claim elements did not “explicitly recite[s] the structure, material, or acts needed to perform the [recited] functions. *Sage* at p. 1428. The Federal Circuit further acknowledged this presumption in *Al-Site Corp. v. VSI International, Inc.*, 174 F.3d 1308, 50 U.S.P.Q.2d 1161 (Fed. Cir. 1999).

Thus, claim elements expressed in “means” plus function format are construed in accordance with 35 U.S.C. § 112, paragraph 6, as set forth above, and as further described in *In re Donaldson* 16 F.3d 1189, 29 U.S.P.Q.2d 1845 (Fed. Cir. 1994)(*en banc*). Therefore, the various “means” elements must be construed in accordance with the structure set forth in the present specification. In this regard, Applicant notes that, in *In re Donaldson*, The Board of

Patent Appeals and Interferences advanced the legal proposition that “limitations appearing in the specification are *not* to be read into the claims of an application.” *In re Donaldson* at 1848. This argument, however, was rejected by the Federal Circuit, which held, as a matter of law, that “one construing means-plus-function language in a claim must look to the specification and interpret that language in light of the corresponding structure ... described therein, and equivalents thereof. *In re Donaldson* at 1848. Furthermore, the holding in *In re Donaldson* does not conflict with the principle that claims are to be given their broadest reasonable interpretation during prosecution. *In re Donaldson* at 1850.

The means-plus-function elements of claim 28 must be construed differently than the corresponding elements of the other claims. Therefore, the rejection of claims 1 and 13, for example, does not necessarily apply to claim 28. The FINAL Office Action, however, failed to differentiate the elements in this way. For at least this additional reason, Applicant submits that the rejection of claim 28 is improper and should be overturned, as the rejection is incomplete and legally deficient.

In addition, the corresponding structure disclosed in the present specification that corresponds to the various means elements is distinct from that disclosed in the cited patents. For at least this additional reason, Applicant submits that the rejection of claim 28 should be overturned, as claim 28 patently defines over the cited patents.

Accordingly, Applicant submits that the rejection of claim 28 is legally deficient and improper as a matter of law, and for at least these reasons, the rejection of claim 28 should be overturned.

D. Discussion of Claim Group IV

The FINAL Office Action rejects claim 8 under 35 U.S.C. §103(a) as allegedly unpatentable over *Locklear* in view of *Olarig*. Applicant respectfully submits that the rejection under §103 should be overturned for any of the following reasons, each of which are separately discussed below:

(A) the FINAL Office Action fails to establish a *prima facie* case of obviousness because the FINAL Office Action has not established the proper suggestion or motivation to combine *Locklear* with *Olarig* in the manner suggested; and

(B) the FINAL Office Action fails to establish a *prima facie* case of obviousness because, even assuming, *arguendo*, that a proper suggestion or motivation to combine has been established, the combined teachings of *Locklear* and *Olarig* do not disclose, teach, or suggest each and every element of claim 8.

A. *Prima Facie* Case of Obviousness Not Established: No Suggestion or Motivation to Combine References as Suggested

Applicant respectfully submits that the FINAL Office Action has failed to identify a proper motivation or suggestion to combine the *Locklear* with *Olarig*. In this regard, Applicant refers to the Federal Circuit decision of *In re Sang-Su Lee*, 277 F.3d 1338, 61 U.S.P.Q.2d 1430 (Fed. Cir. 2002). As clearly articulated in this opinion, general conclusions of obviousness will not be upheld, without clear evidentiary facts to support them. In this regard, FINAL Office Action rejections “cannot rely on conclusory statements when dealing with particular combinations of prior art and specific claims, but **must set forth the rationale on which it relies.**” The *Sang-Su Lee* opinion further states that Office Actions must “make findings of

facts, and present [their] reasoning in sufficient detail that [a] court may conduct meaningful review of the agency action.” *Id.*

"The consistent criteria for determination of obviousness is whether the prior art would have suggested to one of ordinary skill in the art that this [invention] should be carried out and would have a reasonable likelihood of success, viewed in light of the prior art... ." "Both the suggestion and the expectation of success must be founded in the prior art, not in the applicant's disclosure... . In determining whether such a suggestion can fairly be gleaned from the prior art, the full field of the invention must be considered; for the person of ordinary skill in the art is charged with knowledge of the entire body of technological literature, including that which might lead away from the claimed invention." (*Emphasis added.*) *In re Dow Chemical Company*, 837 F.2d 469, 473 (Fed. Cir. 1988).

Furthermore, as acknowledged by the Court of Appeals for the Federal Circuit, the U.S. Patent and Trademark Office ("USPTO") has the burden under § 103 to establish a case of obviousness by showing some objective teaching in the prior art or generally available knowledge of one of ordinary skill in the art that would lead that individual to the claimed invention. See *In re Fine*, 837, F.2d 1071, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). Accordingly, to make a proper case for obviousness, there must be some prior art teaching or established knowledge that would suggest to a person having ordinary skill in the pertinent art to fill the voids apparent in the applied reference. It is respectfully asserted that no such case has been made in the FINAL Office Action.

In this regard, Applicant notes that there must not only be a suggestion to combine the functional or operational aspects of the combined references, but that the Federal Circuit also requires the prior art to suggest **both** the combination of elements **and** the structure resulting from the combination. *Stiftung v. Renishaw PLC*, 945 Fed.2d 1173 (Fed. Cir. 1991). Therefore,

in order to sustain an obviousness rejection based upon a combination of any two or more prior art references, the prior art must properly suggest the desirability of combining the particular elements to create the LAN to WAN communication system of claim 8.

"Particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed." *In re Kotzab*, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). "Even when the level of skill in the art is high, the [Office Action] must **identify specifically the principle**, known to one of ordinary skill, that suggests the claimed combination. In other words, the [Office Action] must explain the reasons one of ordinary skill in the art would have been motivated to select the references and to combine them to render the claimed invention obvious." *In re Rouffet*, 149 F.3d 1350, 1359, 47 USPQ2d 1453, 1459 (Fed. Cir. 1998).

"A showing of a suggestion, teaching, or motivation to combine the prior art references is an essential component of an obviousness holding." *Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d 1120, 1124-25, 56 USPQ2d 1456, 1459 (Fed.Cir.2000) (*quoting C.R. Bard, Inc., v. M3 Systems, Inc.*, 157 F.3d 1340, 1352, 48 USPQ2d 1225, 1232 (Fed.Cir.1998)); The Federal Circuit has made it clear "that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references."); *In re Dembiczak*, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999). Thus, there must be some motivation, suggestion, or teaching of the desirability of making the specific combination that was made by the applicant." *In re Dance*, 160 F.3d 1339, 1343, 48 USPQ2d 1635, 1637 (Fed. Cir. 1998).

In the present application, the FINAL Office Action has clearly failed to satisfy this evidentiary standard, which the Federal Circuit, in *In re Sang-Su Lee*, held that the Administrative Procedures Act mandates. Claims 8-10, 20-22, and 27 were rejected under substantially the same rationale, citing a similar motivation to combine *Locklear* and *Olarig*. Specifically, in rejecting dependent claim 8 the FINAL Office Action stated only:

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate *Olarig*'s teaching into *Locklear*'s method to have the slave computer is [sic] configured to reconfigure the LAN upon detecting a master computer failure, as a result **it provides a fault tolerant systems [sic] are [sic] designed to operate essentially without interruption.**

(*Emphasis Added*, FINAL Office Action, pg. 7). This is the sum total of the argument and reasoning set forth by the FINAL Office Action in reaching the conclusion that one would have been led to combine the divergent teachings of *Locklear* with *Olarig*.

Applicant respectfully submits that, from a legal standpoint, this falls far short of the requirement articulated by the Federal Circuit in *In re Sung-Su Lee*, and for this reason alone the rejection is improper and should be overturned.

From a substantive standpoint, the rejection is erroneous. *Locklear* is directed to a communication system including an access server that communicates information between a LAN and a WAN. (Abstract). *Olarig* is directed to a computer system which transmits a variable-rate heartbeat to a heartbeat monitor to indicate that the component is functioning properly. (Abstract). *Olarig* simply has nothing to do with a LAN to WAN communication system or selecting a master computer or a slave computer using an initiation algorithm. Thus, there is no logical reason why one skilled in the art would have combined the two systems.

Thus, for at least this additional reason, Applicant submits that claim 8 patently defines over the combination of *Locklear* and *Olarig* and the rejection should be overturned.

B. *Prima Facie* Case of Obviousness Not Established: Combination Fails to Teach All Elements

Applicant respectfully submits that claim 8 is allowable for at least the reason that *Locklear* in view of *Olarig* does not disclose, teach, or suggest each and every element of claim 8. For example, a communication system “*wherein a master computer and a slave computer are selected from the first and second computers using one or more initialization algorithms,*” as recited in claim 8, is not disclosed, taught, or suggested by the proposed combination of *Locklear* and *Olarig*.

The FINAL Office Action alleges:

Locklear reference disclose a first computer configured to provide communications over a LAN; however, *Locklear* reference fail to disclose a master computer and a slave computer are selected from the first and second computers using one or more initialization algorithms, the slave computer is configured to reconfigure the local area network (LAN) upon detecting a master computer failure, and master computer applies a set of rules derived from a group of parameters consisting of access, traffic rates, and time-of-day when assigning the at least one virtual connection to each of the master [sic]

Olarig reference disclose [sic] master computer and a slave computer are selected from the first and second computers using one or more initialization algorithms, the slave computer is configured to reconfigure the local area network (LAN) upon detecting a master computer failure, and master computer applies a set of rules derived from a group of parameters consisting of access, traffic rates, and time-of-day when assigning the at least one virtual connection to each of the master (server 16) and the slave computers (Figure 7, and 8; col. 20, lines 41 through col 21, lines 29)

(FINAL Office Action, pg. 6-7). With respect to *Locklear*, the Applicant agrees with the statement in the Office Action that the “*Locklear* reference fail [sic] to disclose a master

computer and a slave computer are selected from the first and second computers using one or more initialization algorithms.” (FINAL Office Action, pg. 6).

With respect to *Olarig*, Applicant respectfully submits that *Olarig* does not disclose, teach, or suggest “*wherein a master computer and a slave computer are selected from the first and second computers using one or more initialization algorithms,*” as recited in claim 8.

Unlike the LAN to WAN communication system of claim 8, *Olarig* apparently discloses a communication system for monitoring computer components that transmit heartbeat signals. *See* FIGs. 7-8; col. 20-22. As an initial matter, a “slave computer” is not even mentioned in *Olarig*, and the referenced “master” described is in reference to a “master PCI arbiter (not shown)” (col. 6, line 11), which is not equivalent to the claimed “master computer.” Furthermore, *Olarig* does not disclose, teach, or suggest a master/slave relationship between computer 704 and computer 100 in FIG. 7, or between any of computer 800, computer 804, or heartbeat monitor 830 in FIG. 8.

Even assuming, *arguendo*, that *Olarig* does disclose the equivalent of a “master computer” and a “slave computer,” *Olarig* does not disclose that a master and slave “are selected from the first and second computers using one or more initialization algorithms.” At most, *Olarig* discloses that “network heartbeat monitor 830 is configured as **a dedicated unit** coupled directly to the LAN 708 for receiving heartbeat messages” (*Emphasis added*, col. 20, lines 50-52), and that “the monitor control logic 810 ... notifies computer systems 800 and 804 via the LAN 708 to begin transmitting heartbeats.” (Col. 21, lines 12-15). Sending a notification to begin transmitting heartbeats is not at all equivalent to the claim limitation of “*a master computer and a slave computer are selected from the first and second computers using one or more initialization algorithms.*” Rather, even assuming that network heartbeat monitor 830 is

equivalent to a “master computer,” *Olarig* describes heartbeat monitor 830 as a “dedicated unit” to receive the heartbeats from the computers on the network. Since heartbeat monitor 830 is a “dedicated unit,” there simply is no reason to include the feature of “a master computer and a slave computer are selected from the first and second computers using one more initialization algorithms.”

Therefore, neither *Locklear* nor *Olarig*, separately or in combination, disclose, teach, or suggest the claimed invention. Accordingly, the rejection of claim 8 should be overturned.

E. Discussion of Claim Group V

The FINAL Office Action rejects claim 20 under 35 U.S.C. §103(a) as allegedly unpatentable over *Locklear* in view of *Olarig*. Applicant respectfully submits that the rejection under §103 should be overturned for any of the following reasons, each of which are separately discussed below:

(A) the FINAL Office Action fails to establish a *prima facie* case of obviousness because the FINAL Office Action has not established the proper suggestion or motivation to combine *Locklear* with *Olarig* in the manner suggested; and

(B) the FINAL Office Action fails to establish a *prima facie* case of obviousness because, even assuming, *arguendo*, that a proper suggestion or motivation to combine has been established, the combined teachings of *Locklear* and *Olarig* do not disclose, teach or suggest each and every element of claim 20.

A. *Prima Facie* Case of Obviousness Not Established: No Suggestion or Motivation to Combine References as Suggested

Applicant respectfully submits that there is no suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the alleged teaching of *Locklear* with the alleged teaching of *Olarig*.

Applicant respectfully submits that, from a legal standpoint, the purported motivation (“*provides a fault tolerant systems [sic] are [sic] designed to operate essentially without interruption*”) falls far short of the requirement articulated by the Federal Circuit in *In re Sung-Su Lee*, and for this reason alone the rejection is improper and should be overturned.

From a substantive standpoint, the rejection is erroneous. *Locklear* is directed to a communication system including an access server that communicates information between a LAN and a WAN. (Abstract). *Olarig* is directed to a computer system which transmits a variable-rate heartbeat to a heartbeat monitor to indicate that the component is functioning properly. (Abstract). *Olarig* simply has nothing to do with a LAN to WAN communication system or selecting a master computer from the local area network using an initialization algorithm. Thus, there is no logical reason why one skilled in the art would have combined the two systems. Thus, for at least this additional reason, Applicant submits that claim 20 patently defines over the combination of *Locklear* and *Olarig* and the rejection should be overturned.

B. *Prima Facie* Case of Obviousness Not Established: Combination Fails to Teach All Elements

Applicant respectfully submits that claim 20 is allowable for at least the reason that *Locklear* in view of *Olarig* does not disclose, teach, or suggest each and every element of claim 20. For example, the step of “*wherein a master computer is selected from the local area*

network (LAN) connected computers using at least one initialization algorithm,” as recited in claim 20, is not disclosed, taught, or suggested by the proposed combination of *Locklear* and *Olarig*.

The FINAL Office Action alleges:

Locklear reference disclose a first computer configured to provide communications over a LAN; however, Locklear reference fail to disclose a master computer and a slave computer are selected from the first and second computers using one or more initialization algorithms, the slave computer is configured to reconfigure the local area network (LAN) upon detecting a master computer failure, and master computer applies a set of rules derived from a group of parameters consisting of access, traffic rates, and time-of-day when assigning the at least one virtual connection to each of the master [sic]

Olarig reference disclose [sic] master computer and a slave computer are selected from the first and second computers using one or more initialization algorithms, the slave computer is configured to reconfigure the local area network (LAN) upon detecting a master computer failure, and master computer applies a set of rules derived from a group of parameters consisting of access, traffic rates, and time-of-day when assigning the at least one virtual connection to each of the master (server 16) and the slave computers (Figure 7, and 8; col. 20, lines 41 through col 21, lines 29)

(FINAL Office Action, pg. 6-7). With respect to *Locklear*, the Applicant agrees with the statement in the Office Action that the “Locklear reference fail [sic] to disclose a master computer and a slave computer are selected from the first and second computers using one or more initialization algorithms.” (FINAL Office Action, pg. 6).

With respect to *Olarig*, Applicant respectfully submits that *Olarig* does not disclose, teach, or suggest a method for managing bi-directional LAN to WAN data transfers “*wherein a master computer is selected from the local area network (LAN) connected computers using at least one initialization algorithm,*” as recited in claim 20. Unlike the LAN to WAN communication system of claim 20, *Olarig* apparently discloses a communication system for monitoring computer components that transmit heartbeat signals. See FIGs. 7-8; col. 20-22. As

an initial matter, the referenced “master” described in *Olarig* is in reference to a “master PCI arbiter (not shown)” (col. 6, line 11), which is not equivalent to the claimed “master computer.” Furthermore, *Olarig* does not disclose, teach, or suggest a master/slave relationship between computer 704 and computer 100 in FIG. 7, or between any of computer 800, computer 804, or heartbeat monitor 830 in FIG. 8.

Even assuming, *arguendo*, that *Olarig* does disclose the equivalent of a “master computer,” *Olarig* does not disclose that “a master computer is selected from the local area network (LAN) connected computers using at least one initialization algorithm.” At most, *Olarig* discloses that “network heartbeat monitor 830 is configured as **a dedicated unit** coupled directly to the LAN 708 for receiving heartbeat messages” (*emphasis added*, col. 20, lines 50-52), and that “the monitor control logic 810 ... notifies computer systems 800 and 804 via the LAN 708 to begin transmitting heartbeats.” (Col. 21, lines 12-15). Sending a notification to begin transmitting heartbeats is not at all equivalent to the claim limitation of “a master computer is selected from the local area network (LAN) connected computers using at least one initialization algorithm.” Rather, even assuming that network heartbeat monitor 830 is equivalent to a “master computer,” *Olarig* describes heartbeat monitor 830 as a “dedicated unit” to receive the heartbeats from the computers on the network. Since heartbeat monitor 830 is a “dedicated unit,” there simply is no reason to include the step of “a master computer is selected from the local area network (LAN) connected computers using at least one initialization algorithm.”

Therefore, neither *Locklear* nor *Olarig*, separately or in combination, disclose, teach, or suggest a method for managing bi-directional LAN to WAN data transfers “wherein a master computer is selected from the local area network (LAN) connected computers using at least one

initialization algorithm,” as recited in claim 20. Accordingly, the rejection of claim 20 should be overturned.

F. Discussion of Claim Group VI

The FINAL Office Action rejects claim 27 under 35 U.S.C. §103(a) as allegedly unpatentable over *Locklear* in view of *Olarig*. Applicant respectfully submits that the rejection of claim 27 under §103 should be overturned for any of the following reasons, each of which are separately discussed below:

(A) the FINAL Office Action fails to establish a *prima facie* case of obviousness because the FINAL Office Action has not established the proper suggestion or motivation to combine *Locklear* with *Olarig* in the manner suggested and, in fact, *Locklear* teaches away from the limitations of claim 27; and

(B) the FINAL Office Action fails to establish a *prima facie* case of obviousness because, even assuming, *arguendo*, that a proper suggestion or motivation to combine has been established, the combined teachings of *Locklear* and *Olarig* do not disclose, teach or suggest each and every element of claim 27.

A. *Prima Facie* Case of Obviousness Not Established: No Suggestion or Motivation to Combine References as Suggested

Applicant respectfully submits that there is no suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the alleged teaching of *Locklear* with the alleged teaching of *Olarig*.

In fact, the proposed combination of *Locklear* and *Olarig* is improper because *Locklear* actually teaches away from the combination. It is improper to combine references where the

references teach away from their combination. *In re Grasselli*, 713 F.2d 731, 743, 218 USPQ 769, 779 (Fed. Cir. 1983). Although the Office Action indicates that the access server 16 in *Locklear* is the equivalent of the claimed master computer, *Locklear* apparently discloses that part of the functionality of an access server 16 is to process downstream data transfers which contradicts, and teaches away from, the features of claim 27 which states that “downstream data transfers designated for slave computers are not processed by the master computer.” See, e.g., FIG. 4. Accordingly, *Locklear* does not provide the necessary teaching or suggestion to combine the teachings of *Locklear* with *Olarig*. For this reason alone, the rejection should be overturned.

Additionally, Applicant respectfully submits that, from a legal standpoint, the purported motivation (“*provides a fault tolerant systems [sic] are [sic] designed to operate essentially without interruption*”) falls far short of the requirement articulated by the Federal Circuit in *In re Sung-Su Lee*, and for this reason alone the rejection is improper and should be overturned.

From a substantive standpoint, the rejection is erroneous. *Locklear* is directed to a communication system includes an access server that communicates information between a LAN and a WAN. (Abstract). *Olarig* is directed to a computer system which transmits a variable-rate heartbeat to a heartbeat monitor to indicate that the component is functioning properly. (Abstract). *Olarig* simply has nothing to do with a LAN to WAN communication system in which a master computer assigns at least one asynchronous transfer mode virtual connection (ATM VC) to each computer in communication with the LAN. Thus, there is no logical reason why one skilled in the art would have combined the two systems. Thus, for at least this additional reason, Applicant submits that claim 27 patently defines over the combination of *Locklear* and *Olarig* and the rejection should be overturned.

B. *Prima Facie* Case of Obviousness Not Established: Combination Fails to Teach All Elements

Applicant respectfully submits that claim 27 is allowable for at least the reason that *Locklear* in view of *Olarig* does not disclose, teach, or suggest, and **the FINAL Office Action does not even allege the combination discloses**, each and every element of claim 27.

For example, the proposed combination of *Locklear* in view of *Olarig* does not disclose, teach, or suggest, that “*the master computer assigns at least one asynchronous transfer mode virtual connection (ATM VC) to each computer in communication with the local area network (LAN).*”

The FINAL Office Action alleges:

Locklear reference disclose a first computer configured to provide communications over a LAN; however, *Locklear* reference fail to disclose a master computer and a slave computer are selected from the first and second computers using one or more initialization algorithms, the slave computer is configured to reconfigure the local area network (LAN) upon detecting a master computer failure, and master computer applies a set of rules derived from a group of parameters consisting of access, traffic rates, and time-of-day when assigning the at least one virtual connection to each of the master [sic]

Olarig reference disclose [sic] master computer and a slave computer are selected from the first and second computers using one or more initialization algorithms, the slave computer is configured to reconfigure the local area network (LAN) upon detecting a master computer failure, and master computer applies a set of rules derived from a group of parameters consisting of access, traffic rates, and time-of-day when assigning the at least one virtual connection to each of the master (server 16) and the slave computers (Figure 7, and 8; col. 20, lines 41 through col 21, lines 29)

(FINAL Office Action, pg. 6-7). With respect to *Locklear*, the Applicant agrees with the statement in the Office Action that the “*Locklear* reference fail [sic] to disclose a master computer and a slave computer are selected from the first and second computers using one or more initialization algorithms and master computer applies a set of rules derived from a

group of parameters consisting of access, traffic rates, and time-of-day when assigning the at least one virtual connection to each of the master [sic].” (FINAL Office Action, pg. 6).

Additionally, Applicants submit that *Locklear* does not reference an “asynchronous transfer mode virtual connection” at all.

With respect to *Olarig*, Applicant submits that *Olarig* does not disclose, teach, or suggest that “***the master computer assigns at least one asynchronous transfer mode virtual connection (ATM VC) to each computer in communication with the local area network (LAN).***” In fact, *Olarig* does not reference a “virtual connection,” or an “asynchronous transfer mode virtual connection” at all. Rather *Olarig* discloses at most, that “the monitor control logic 810 ... notifies computer systems 800 and 804 via the LAN 708 to begin transmitting heartbeats.” (Col. 21, lines 12-15). Even assuming, *arguendo*, that monitor control logic 810 is a “master computer,” the “heartbeat” of *Olarig* is not equivalent to a virtual connection, and is certainly not equivalent to an “asynchronous transfer mode virtual connection (ATM VC).” Thus, neither *Locklear* or *Olarig* disclose, teach, or suggest that “***the master computer assigns at least one asynchronous transfer mode virtual connection (ATM VC) to each computer in communication with the local area network (LAN)***” as recited in claim 27. Accordingly, the rejection to claim 27 should be overturned for this reason alone.

The rejection of Claim 27 should be overturned for the additional reason that the proposed combination of *Locklear* and *Olarig* does not disclose, teach, or suggest, and **the FINAL Office Action does not even allege**, “using each computer to selectively recognize and remove the downstream data transfer designated from the network ***wherein downstream data transfers designated for slave computers are not processed by the master computer***” as recited in claim 27. In fact, even assuming *arguendo* that access server 16 in *Locklear* is the equivalent

of the claimed “master computer,” *Locklear* apparently discloses that part of the functionality of an access server 16 is to process downstream data transfers which contradicts, and teaches away from, claim 27 which states that “downstream data transfers designated for slave computers are not processed by the master computer.” *See, e.g.*, FIG. 4.

Additionally, *Olarig* simply does not disclose, teach, or suggest “using each computer to selectively recognize and remove the downstream data transfer designated from the network ***wherein downstream data transfers designated for slave computers are not processed by the master computer.***” In fact, *Olarig* does not teach a master or a slave device at all, and certainly does not disclose that “data transfers designated for slave computers are not processed by the master computer.” Therefore, neither *Locklear* nor *Olarig*, separately or in combination, disclose, teach, or suggest “using each computer to selectively recognize and remove the downstream data transfer designated from the network ***wherein downstream data transfers designated for slave computers are not processed by the master computer.***” Accordingly, the rejection of claim 27 should be overturned for this additional reason.

IX. CONCLUSION

Based upon the foregoing discussion, Applicant respectfully requests that the Examiner's FINAL rejection of claims 1 - 33 be overruled and overturned by the Board, and that the application be allowed to issue as a patent with all pending claims 1-33.

A credit card authorization is enclosed herewith to cover the \$330 fee for this Appeal Brief. No additional fees are believed to be due in connection with this Appeal Brief. If, however, any additional fees are deemed to be payable, you are hereby authorized to charge any such fees to deposit account No. 20-0778.

Respectfully submitted,



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X. APPENDIX

Claims

1. A local area network (LAN) to wide area network (WAN) communication system comprising:
 - a first computer;
 - a first communication device electrically coupled to the first computer configured to provide communications over a LAN, the first communication device in communication with a WAN via a first communication link;
 - a second computer; and
 - a second communication device electrically coupled to the second computer configured to provide communications over the LAN between the second and the first computers, wherein the first computer is configured to assign at least one virtual connection for each of the first and second computers to enable the first computer to route WAN data traffic across the LAN.
2. The communication system of claim 1, wherein the first communication link comprises a xDSL communication link.
3. The communication system of claim 1, wherein local area network (LAN) data signals are transmitted via frequencies greater than 1 MHz.
4. The communication system of claim 1, wherein the first computer manages simultaneous data transfers between both itself and the second computer over the first communication link.

5. The communication system of claim 1, wherein the at least one virtual connection is identified and managed via an asynchronous transfer mode (ATM) protocol.

6. The communication system of claim 2, wherein local area network (LAN) data signals are transmitted via frequencies less than 1 MHz and wherein the frequencies fall between identified xDSL frequencies.

7. The communication system of claim 1, wherein each of the first and second computers are configured with a first and second communication device respectively, each of the first and second communication devices configured to enable local area network (LAN) communications between the first and second computers and wherein each of the first and second communication devices in cooperation with their respective computer is configured to assign at least one virtual connection for each of the first and second computers to enable either of the first and second computers to route wide area network (WAN) data traffic across the LAN.

8. The communication system of claim 7, wherein a master computer and a slave computer are selected from the first and second computers using one or more initialization algorithms.

9. The communication system of claim 8, wherein the slave computer is configured to reconfigure the local area network (LAN) upon detecting a master computer failure.

10. The communication system of claim 8, wherein the master computer applies a set of rules derived from a group of parameters consisting of access, traffic rates, and time-of-day when assigning the at least one virtual connection to each of the master and the slave computers.

11. The communication system of claim 1, wherein the first communication link comprises a community antenna television (CATV) network link.

12. The communication system of claim 1, wherein the first communication link comprises a wireless network link.

13. A method for managing bi-directional local area network (LAN) to wide area network (WAN) data transfers in a communication system comprising:

using a master computer to assign at least one virtual connection to each computer in communication with the LAN;

receiving a downstream signal (WAN to LAN) at a transceiver coupled to the master computer;

forwarding the downstream signal to the master computer;

identifying at least one computer designated to receive the downstream signal;

forwarding the downstream signal to the at least one designated computer on the LAN;

receiving an upstream signal (LAN to WAN) at the master computer; and

forwarding the upstream signal from the master computer to the transceiver.

14. The method of claim 13, wherein the transceiver is a xDSL compatible transceiver.
15. The method of claim 13, wherein local area network (LAN) data signals are transmitted via frequencies greater than 1 MHz.
16. The method of claim 13, wherein the master computer manages simultaneous wide area network (WAN) data transfers between both itself and each other computer in communication with the local area network (LAN) via the transceiver.
17. The method of claim 13, wherein the at least one virtual connection is identified and managed via an asynchronous transfer mode (ATM) protocol.
18. The method of claim 13, wherein local area network (LAN) data signals are transmitted via frequencies less than 1 MHz and wherein the frequencies fall between identified digital subscriber line (DSL) frequencies.
19. The method of claim 13, wherein each computers on the local area network (LAN) is configured with a compatible communication device, each communication device configured to enable LAN communications between LAN devices and wherein each communication device in cooperation with its respective computer is configured to assign at least one virtual connection for each LAN connected computer to enable any LAN connected computer to route wide area network (WAN) data traffic across the LAN.

20. The method of claim 19, wherein a master computer is selected from the local area network (LAN) connected computers using at least one initialization algorithm.

21. The method of claim 20, wherein at least one slave computer is configured to reconfigure the local area network (LAN) upon detecting a master computer failure.

22. The method of claim 20, wherein the master computer applies a set of rules derived from a group of parameters consisting of access, traffic rates, and time-of-day when assigning the at least one virtual connection to each of the local area network (LAN) connected computers.

23. The method of claim 13, wherein the bi-directional local area network (LAN) to wide area network (WAN) data transfers are completed via a community antenna television (CATV) network link.

24. The method of claim 13, wherein the bi-directional local area network (LAN) to wide area network (WAN) data transfers are completed via a wireless network link.

25. The method of claim 13, wherein the wide area network (WAN) is the Internet.

26. The method of claim 13, wherein the wide area network (WAN) is a private network.

27. The method of claim 13, wherein the master computer assigns at least one asynchronous transfer mode virtual connection (ATM VC) to each computer in communication with the local area network (LAN), further comprising:

notifying each computer on the LAN of the assigned ATM VC identifier; and

using each computer to selectively recognize and remove the downstream data transfer designated from the network wherein downstream data transfers designated for slave computers are not processed by the master computer.

28. A local area network (LAN) to wide area network (WAN) communication system comprising:

means to complete a first communication link between a master computer and the WAN;

means to communicate between the master computer and each remaining device integrated on the LAN and assign at least one virtual connection to each integrated device on the LAN;

means to identify and forward LAN to WAN data transfers via the first communication link; and

means to selectively receive WAN to LAN data transfers at each device integrated on the LAN.

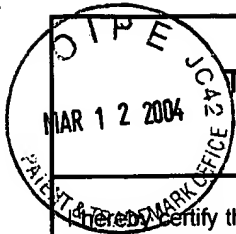
29. The communication system of claim 28, wherein the means to complete a first communication link is selected from the group consisting of a cable modem, a radio-frequency (RF) compatible converter, a digital subscriber line modem, and a computer modem.

30. The communication system of claim 28, wherein the means to communicate between the master computer and each remaining device integrated on the local area network (LAN) is accomplished with a data controller coupled to a respective computer, the data controller configured to send and receive LAN data traffic, the data controller further configured to translate LAN data traffic from a format suitable for transmission over a LAN to a format suitable for transmission over a wide area network (WAN), the data controller further configured to perform the reverse WAN to LAN data traffic translation.

31. The communication system of claim 28, wherein the means to accomplish both local area network (LAN) to wide area network (WAN) data transfers is accomplished via an asynchronous transfer mode (ATM) protocol.

32. The communication system of claim 31, wherein the asynchronous transfer mode (ATM) protocol uses an assigned virtual connection to accomplish data transfers to local area network (LAN) connected devices.

33. The communication system of claim 31, wherein the asynchronous transfer mode (ATM) protocol uses the combination of a terminal control protocol (TCP) and an Internet protocol (IP) address to identify a destination device on the wide area network (WAN).

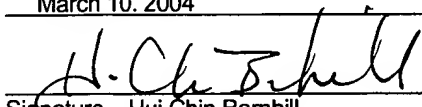


TRANSMITTAL OF APPEAL BRIEF
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March 10, 2004


Signature - Hui Chin Barnhill

In re Application of
Bell

Application Number
09/579,309

Filed
May 25, 2000

For
System and Method to Interface a Local Area Network with a Wide Area Network

Group Art Unit
2143

Examiner
Nguyen, P.

Confirmation No.:
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Transmitted herewith in **triplicate** is the Appeal Brief in this application with respect to the Notice of Appeal filed on March 10, 2004

The fee for this Appeal Brief is (37 CFR 1.17(c))

\$ 330.00

(complete (a) or (b) as applicable)

The proceedings herein are for a patent application and the provisions of 37 CFR 1.17(a)-(d) apply.



(a) Applicant petitions for an extension of time under 37 CFR 1.136 (fees: 37 CFR 1.17(a)-(d) for the total number of months checked below:



One month (37 CFR 1.17(a)(1))



Two months (37 CFR 1.17(a)(2))



Three months (37 CFR 1.17(a)(3))



Four months (37 CFR 1.17(a)(4))

RECEIVED

\$ 110.00

\$ 420.00

MAR 17 2004

\$ 950.00

\$ 1,480.00



The extension fee has already been filed in this application.

Technology Center 2100



(b) Applicant believes that no extension of time is required. However, this conditional petition is being made to provide for the possibility that the applicant has inadvertently overlooked the need for a petition and fee for extension of time.

Method of Payment:



Payment is enclosed as follows:



A check in the amount of enclosed.



Payment by credit card. Form PTO-2038 is attached in the amount of 660.00



The Commissioner is authorized to charge to a Deposit Account



The Commissioner is hereby authorized to charge any deficiencies in fees, or credit any overpayment to Deposit Account No. 20-0778. A duplicate copy is enclosed.

Warning: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

March 10, 2004
Date


Daniel R. McClure, Reg. No. 38,962